

Municipal and School



Transportation Assistance



MSTA School Traffic Calculator

School Name: Your County School

Is this a PUBLIC school? **Yes**

Version: 6172003

MSTA School Queue Input					Calculations				
Type School	Student Population	Number of Buses	Faculty Members	Student Drivers	PM Total Number of Vehicles	PM Maximum Vehicles	Required Queue Length	Total AM Trips	Total PM Trips
Elementary	800	10	90	450	131	60	1323	685	272
Middle	1000	20	100		142	74	1673	812	304
High	1500	25	135		65	36	884	886	605
								2383	1181

	Elementary School Data							
	AM Trips Generated				PM Trips Generated			
Direction	Parents	Buses	Faculty	Trips	Parents	Buses	Faculty	Trips
IN	293	10	90	393	131			131
OUT	293			293	131	10		141
		AM Elementary Trips		685			PM Elementary Trips	
				685			272	

	Middle School Data							
	AM Trips Generated				PM Trips Generated			
Direction	Parents	Buses	Faculty	Trips	Parents	Buses	Faculty	Trips
IN	346	20	100	466	142			142
OUT	346			346	142	20		162
		AM Middle Trips		812		PM Middle Trips		304

High School Data											
AM Trips Generated						PM Trips Generated					
Direction	Parents	Buses	Faculty	Student Drivers	Trips	Parents	Buses	Faculty	Student Drivers	Trips	
IN	138	25	135	450	748	65				65	
OUT	138				138	65	25		450	540	
AM High Trips					886	PM High Trips			605		
k traffic for ormally take inutes.			Total All AM Trips	In	1606				Total All PM Trips	In	338
				Out	776					Out	843
				Total	2383					Total	1181

ak traffic for
ormally take
minutes.

ADT
957
1116
1491
3564

To help insure school systems incorporate **transportation safety** in future designs, state law requires schools to obtain an evaluation and recommendations from NCDOT at the beginning of the construction process.

DEPARTMENT OF TRANSPORTATION TO EVALUATE THE LOCATIONS OF PROPOSED PUBLIC AND PRIVATE SCHOOLS TO ENHANCE TRAFFIC OPERATIONS AND SAFETY

SECTION 27.27. G.S.136-18 reads as rewritten:

“§ 136-18. Powers of Department of Transportation.

The said Department of Transportation shall be vested with the following powers:

...

- (29) (29a) To coordinate with all public and private entities planning schools to provide written recommendations and evaluations of driveway access and traffic operational and safety impacts on the State Highway system resulting from the development of the proposed sites. All public and private entities shall, upon acquiring land for a new school or prior to beginning construction of a new school, relocating a school, or expanding an existing school, request from the Department a written evaluation and written recommendations to ensure that all proposed access points comply with the criteria in the current North Carolina Department of Transportation ‘Policy on Street and Driveway Access’. The Department shall provide the written evaluation and recommendations within a reasonable time, which shall not exceed 60 days. This subdivision shall not be construed to require the public or private entities planning schools to meet the recommendations made by the Department, except those highway improvements that are required for safe ingress and egress to the State highway system.

Municipal and School



Transportation Assistance

Schools in North Carolina

Type School	Locations	Students
Public	2422	1,426,792
Charter	96	38,122
Private	691	96,421
	<hr/> 3209	<hr/> 1,561,335

Nationally, less than half of the students use buses

Schools in North Carolina

That's 2518 Public School Locations
and around 750,000 children
in and along our roadways AM and PM,
Monday through Friday



- Make our transportation network **safer**
- Make our transportation network move people and goods more **efficiently**
- Make our infrastructure **last longer**

- Make our transportation network **safer**
- Make our transportation network move people and goods more **efficiently**
- Make our infrastructure **last longer**
- Make our organization a place that **works well**
- Make our organization **a great place to work**



Are school designs helping us meet our goals ?



Every school wants a signal



But few meet signal warrants

Does this help us meet our goals ?

A Traffic Director may not be the safest option

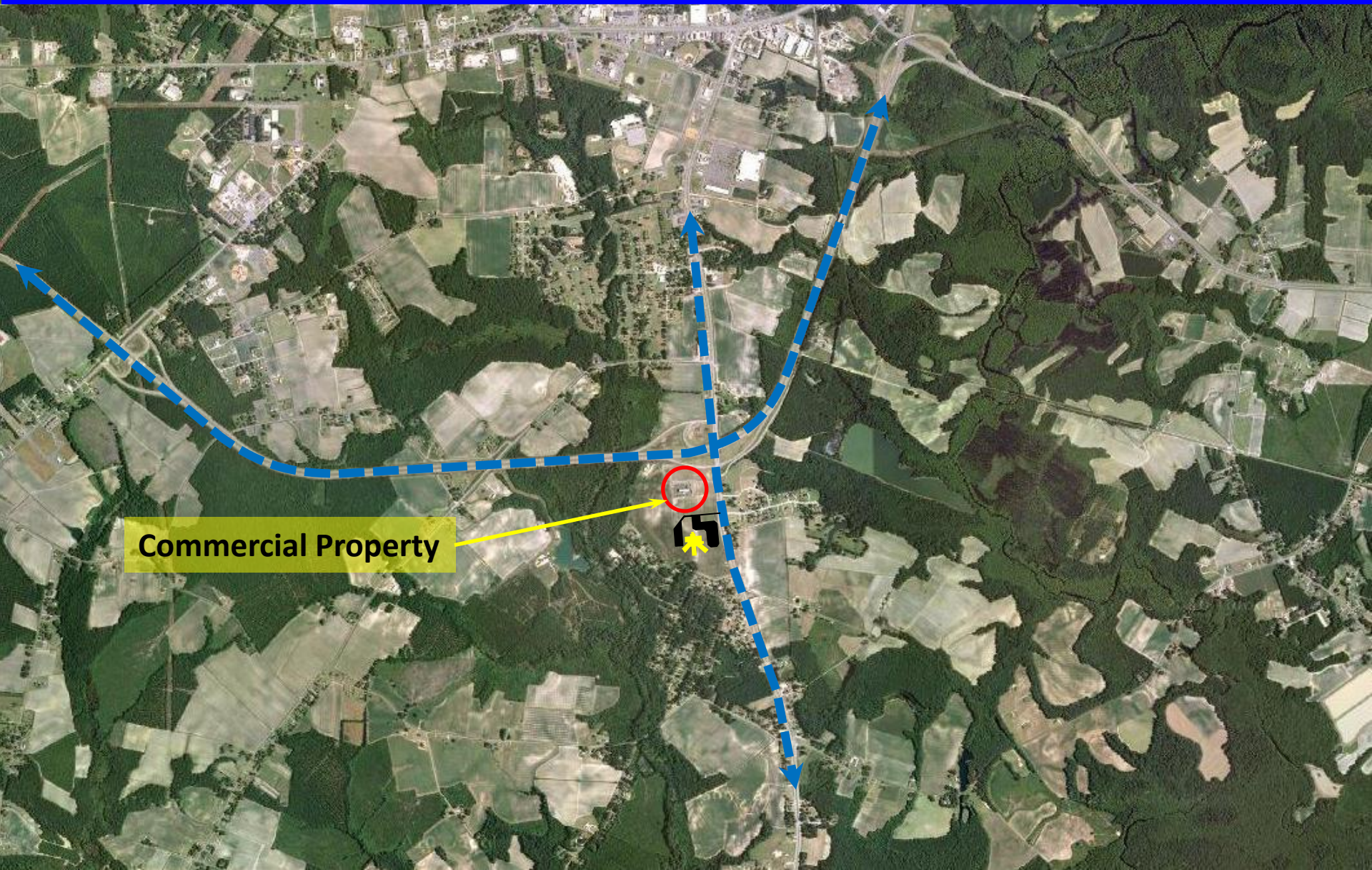


There are other ways

Are turn lanes installed for the right reason?



Are school officials considering “Transportation” needs for the pedestrian, bicycle and vehicle?



Commercial Property

Does this location help NCDOT provide a network that is safe, efficient and last longer?



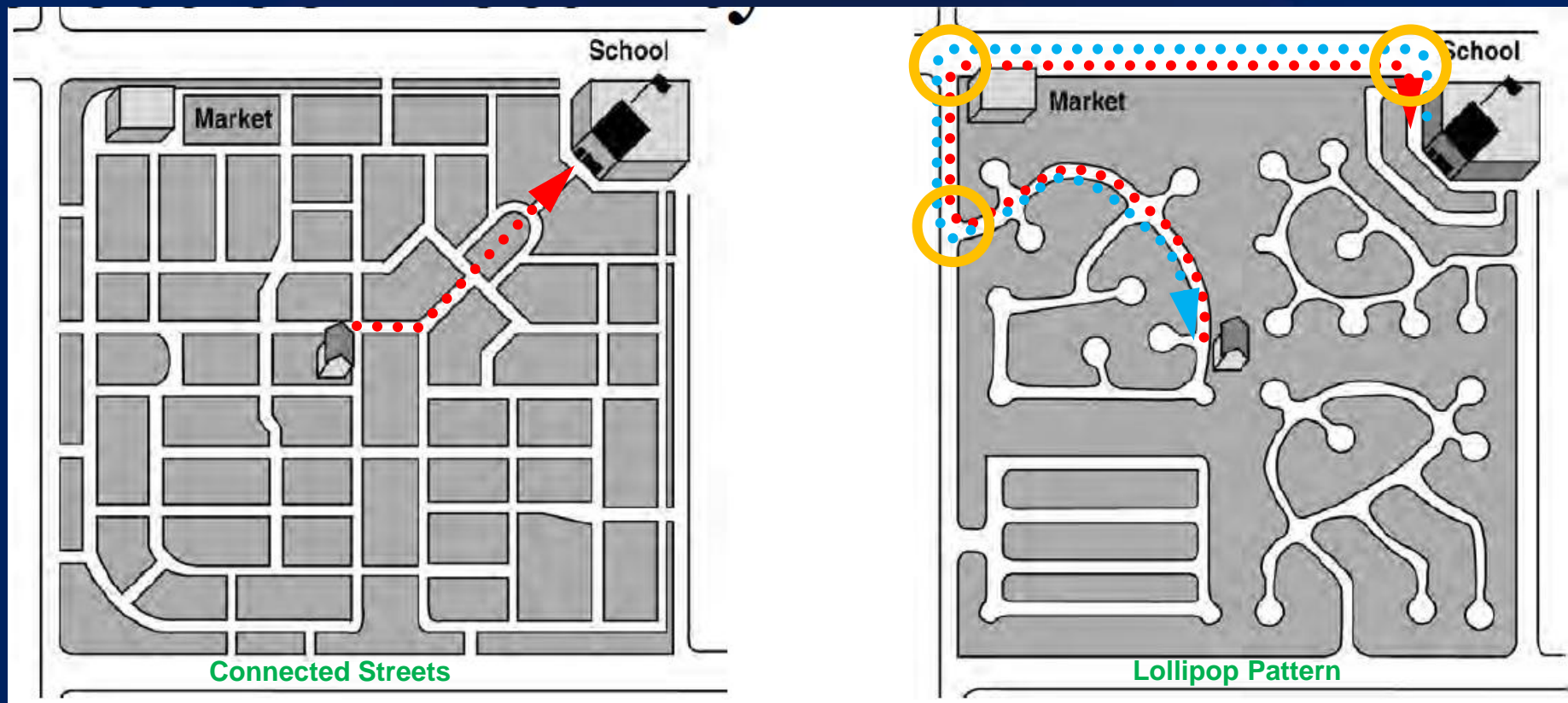
School Transportation Issues



=



Do neighborhood Streets Provide Connectivity?



Connectivity creates a pedestrian-friendly street system by:

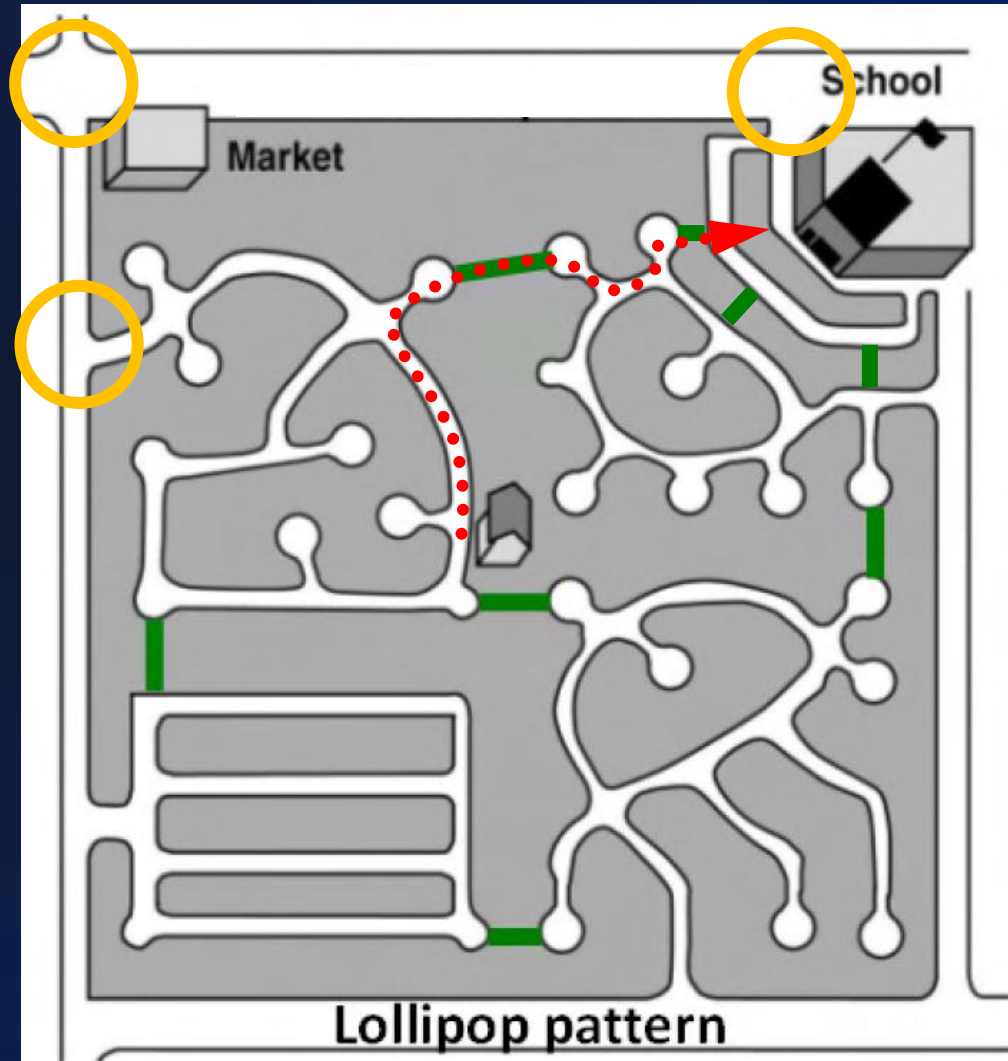
- Reducing walking distances;
- Offering more route choices, more quiet local streets;
- Dispersing traffic – reducing reliance on arterials for all trips

Increase connectivity with paths, greenways

Reduces walking distances

Offers more route choices

Reduces motor vehicle traffic



Helping School Transportation



Separate pedestrians and vehicle types

Organize student loading process

Assign short term "Visitor" parking

Restrict drivers options



Separate pedestrians and vehicle types



Organize student loading process



Assign short term “Visitor” parking



Restrict drivers options

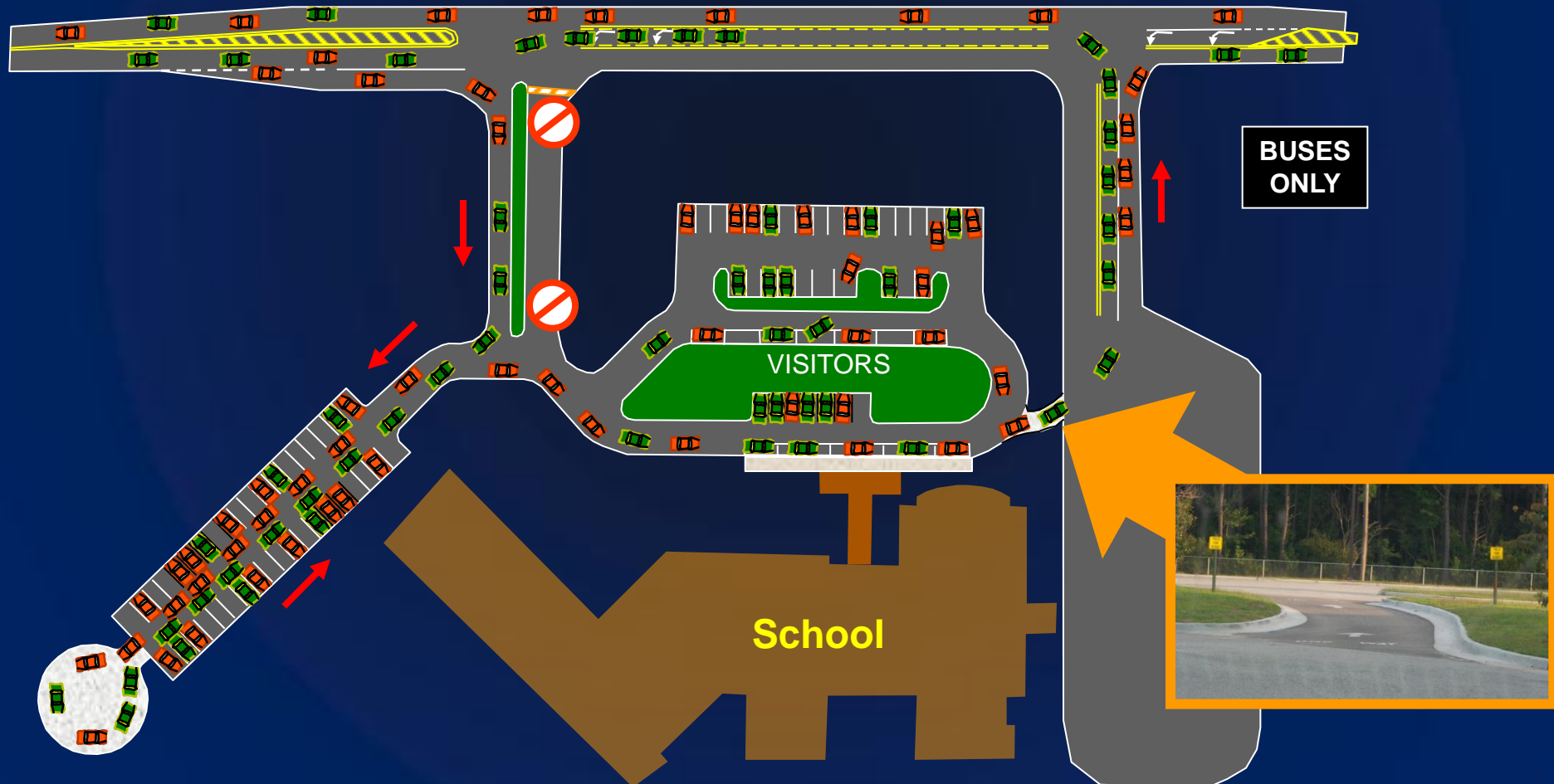


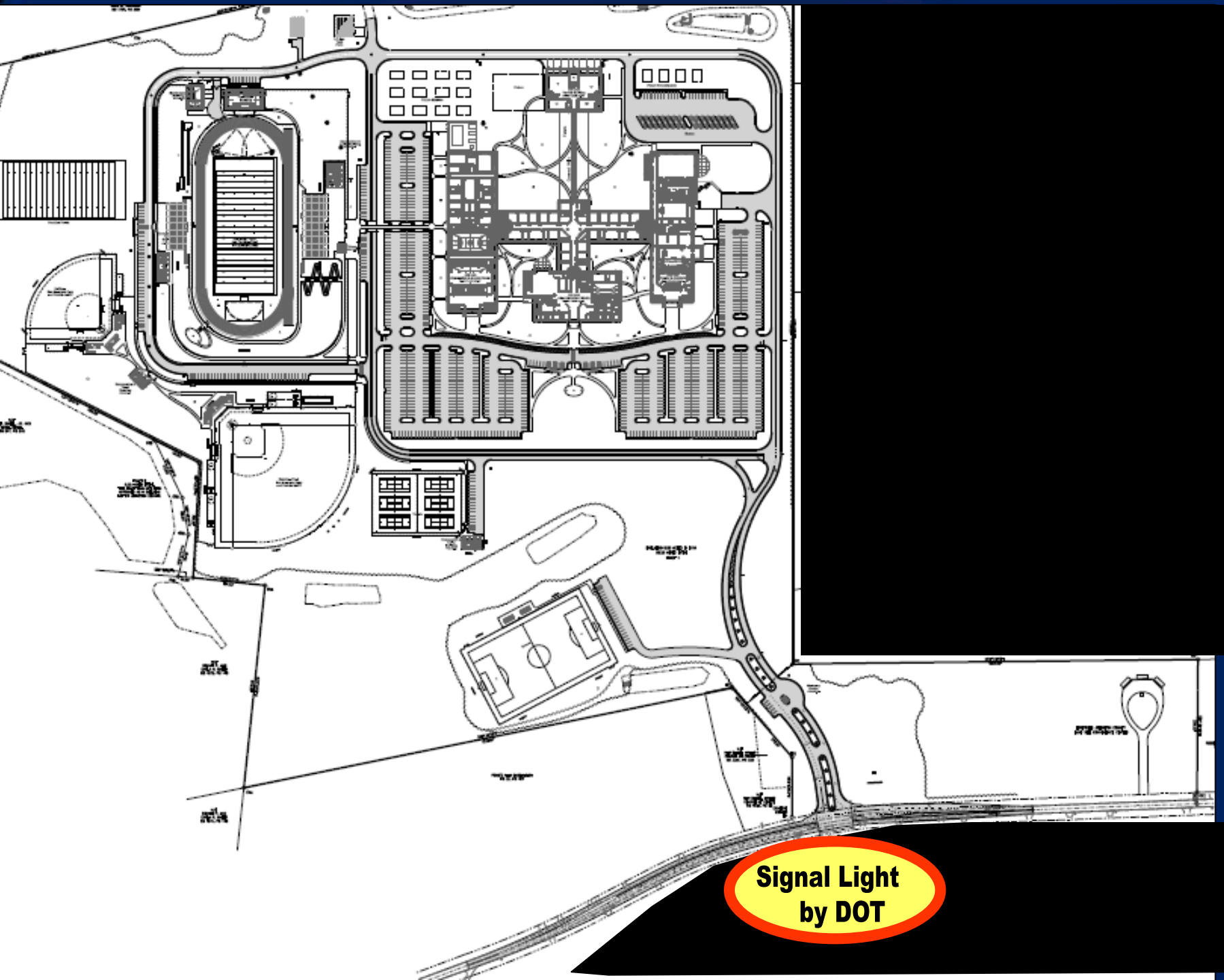
Example:

Including traffic engineering in the design

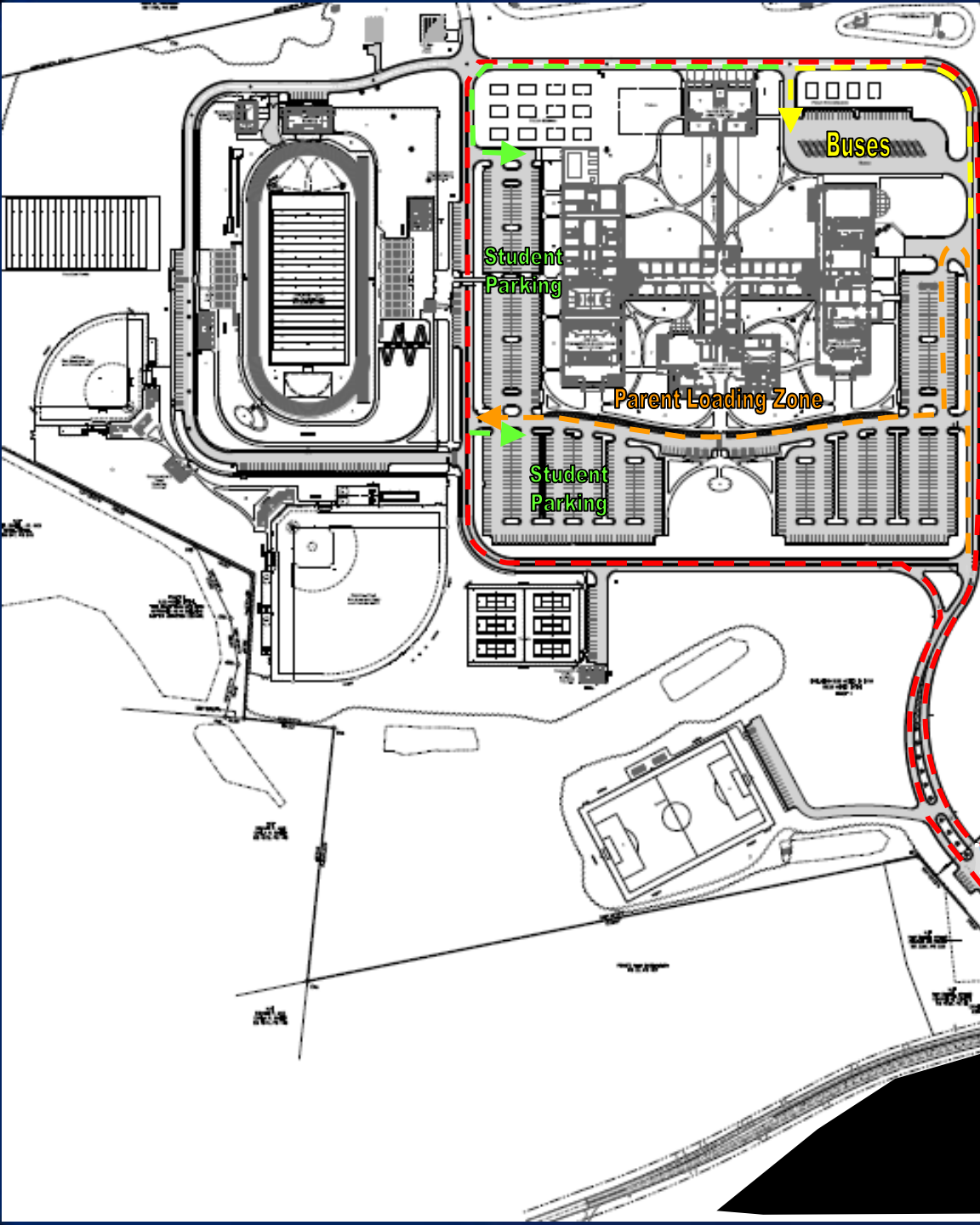


Including traffic engineering in the design Can help us meet our goals

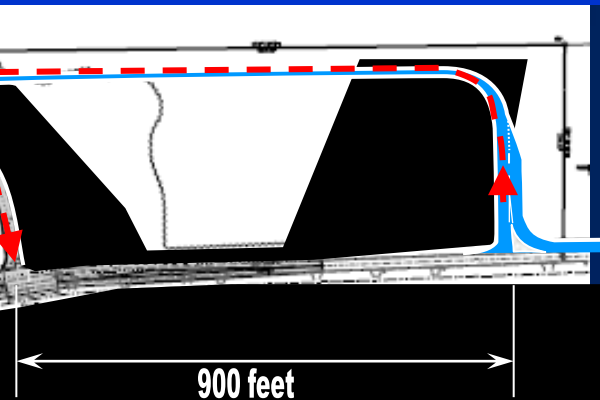




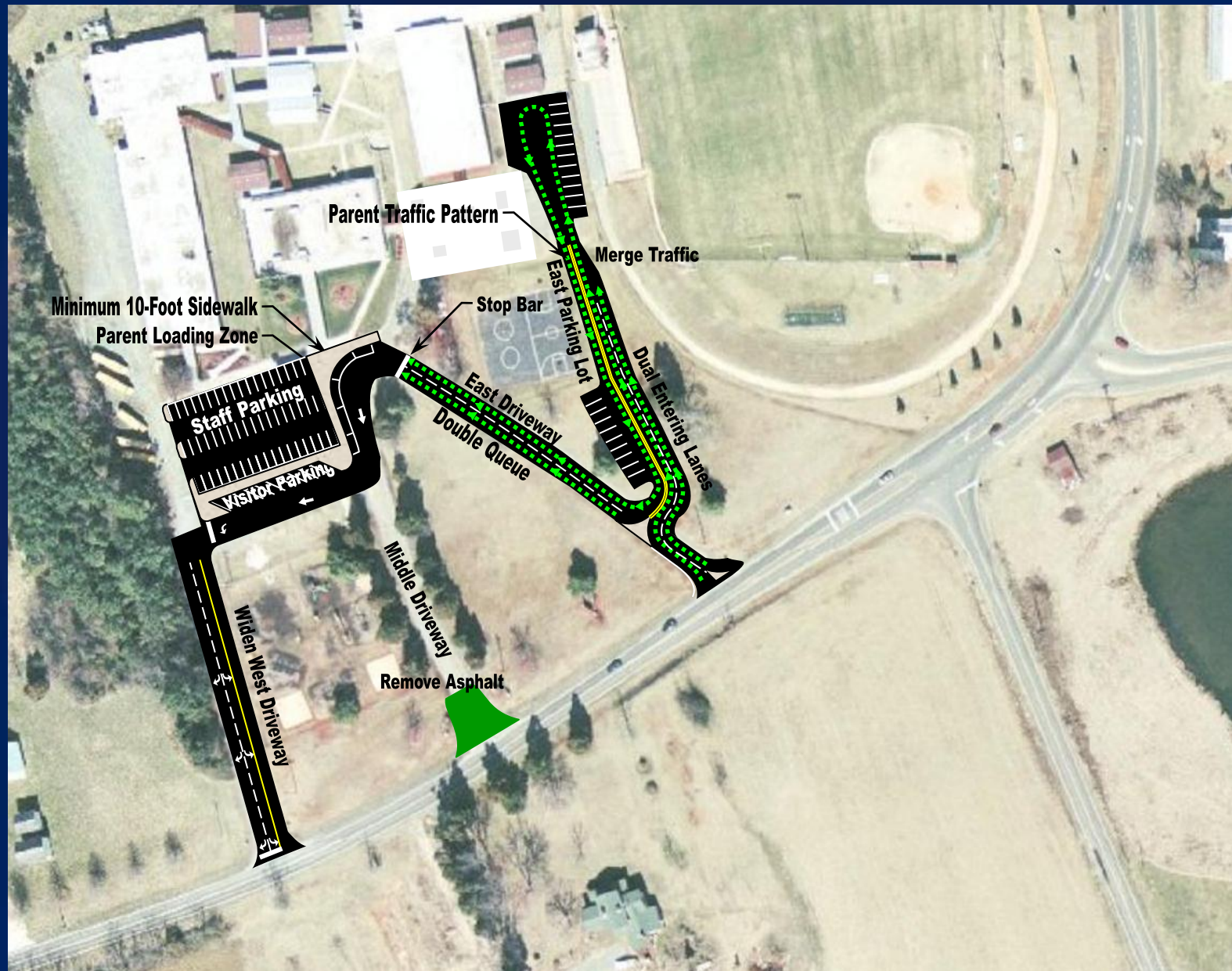
**Signal Light
by DOT**



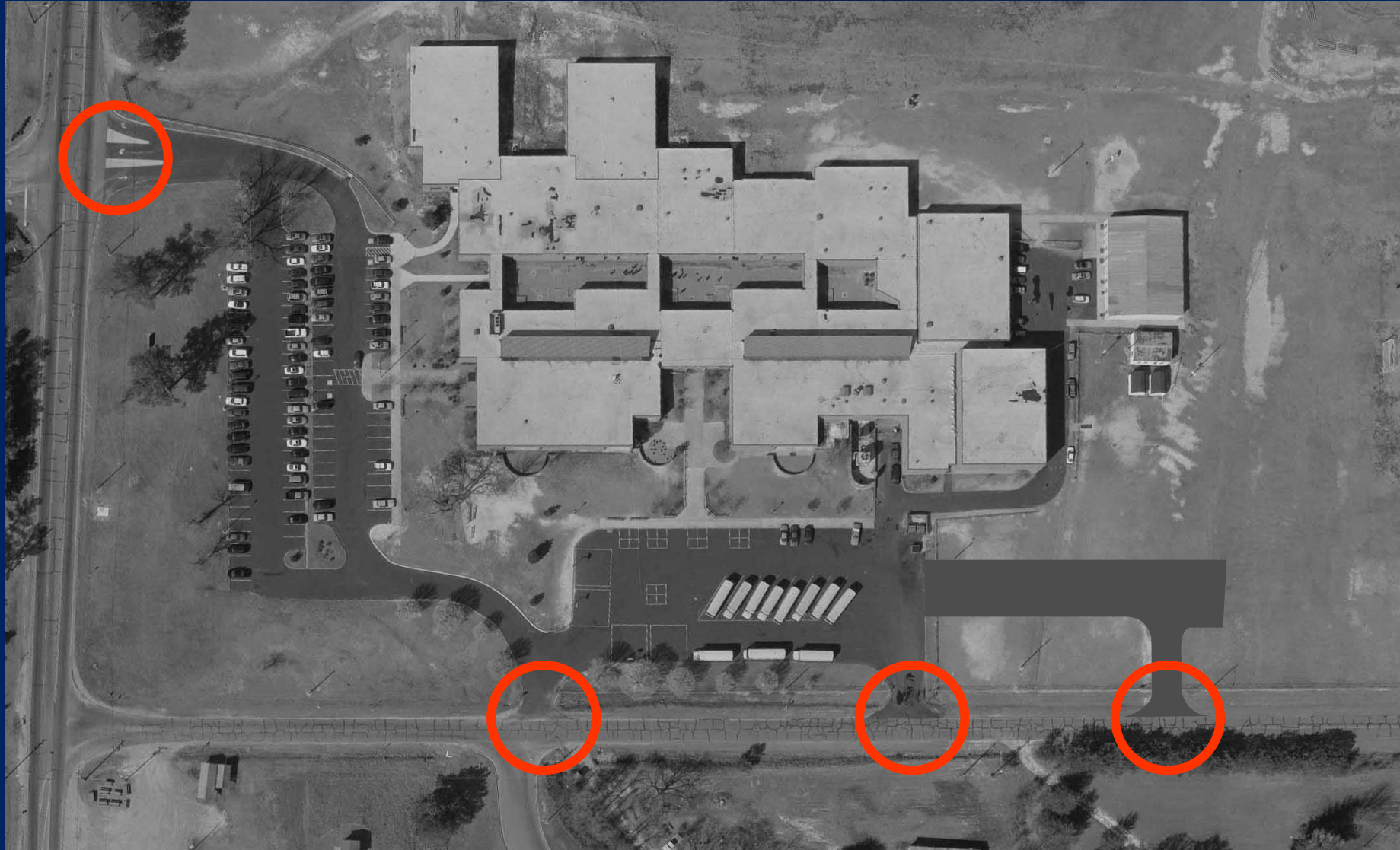
- Separate vehicle types for parents, buses and student drivers
- Implement a one-way traffic pattern on-campus
- Separate ingress and egress driveway 900 feet apart
- Construct 150 foot entering channelized right turn lane to help reduce left turn delay



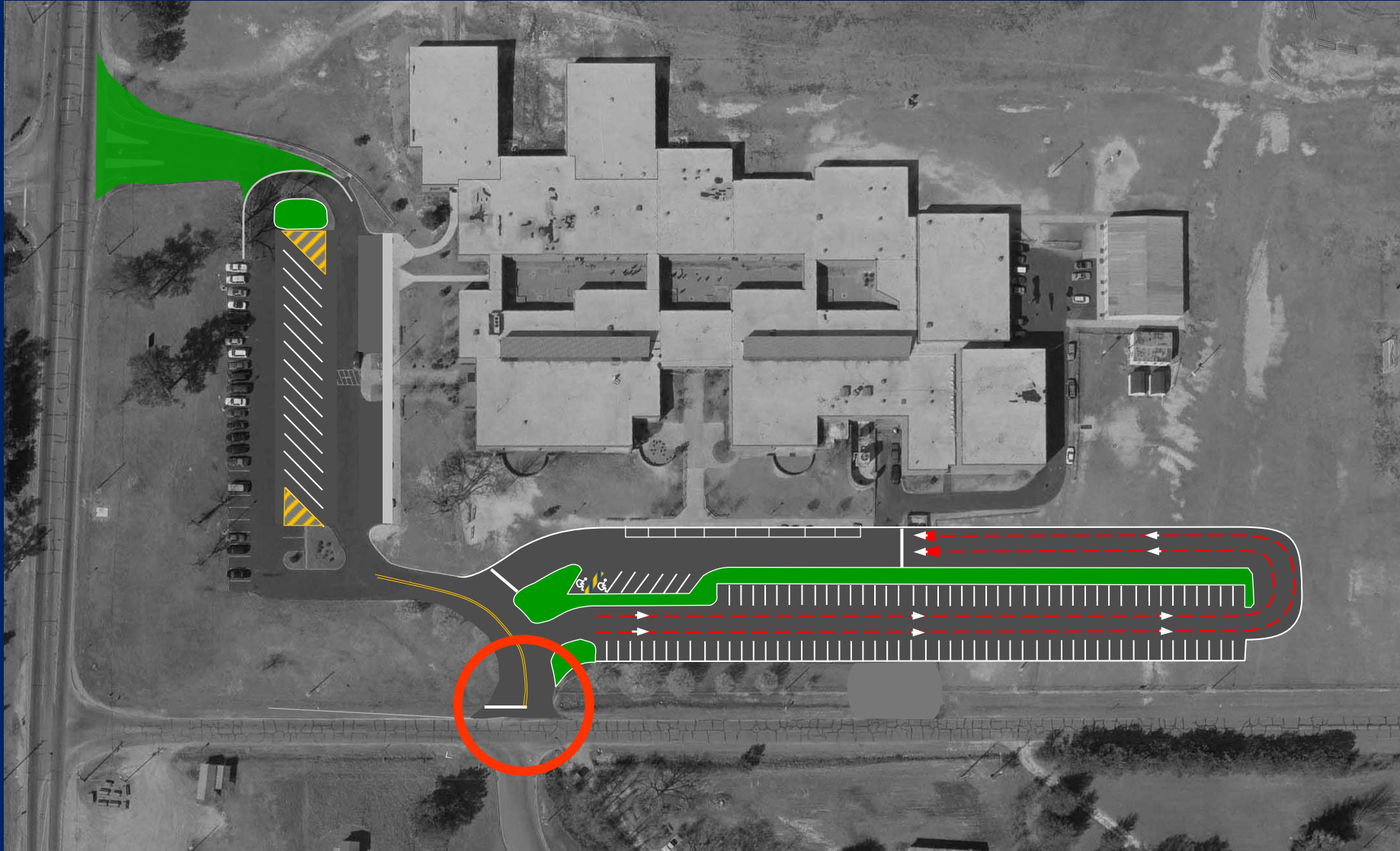
Is a one-way traffic pattern enough?



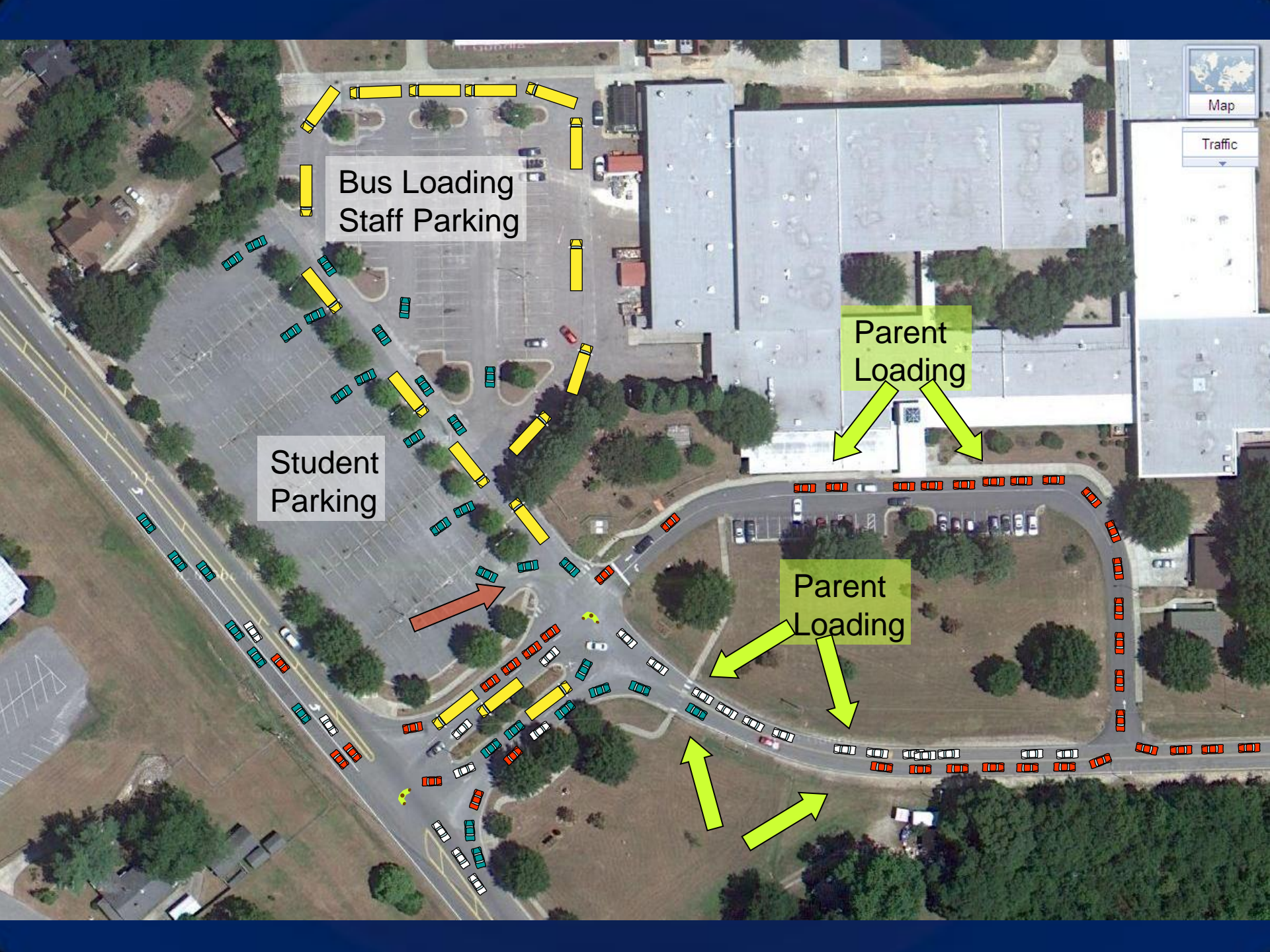
Reduce the number of driveways/drivers options



Reduce the number of driveways/drivers options







Map

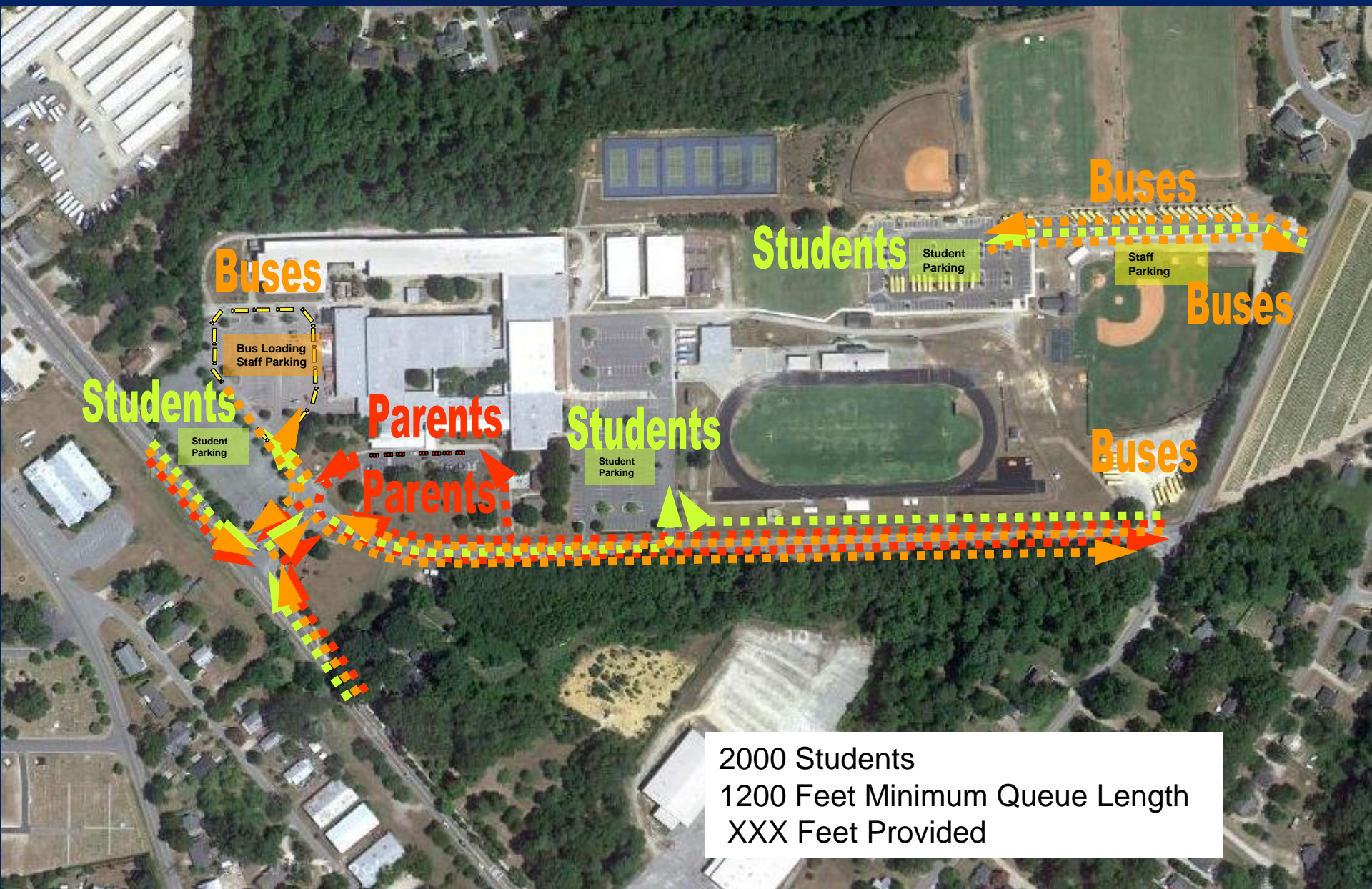
Traffic

Bus Loading
Staff Parking

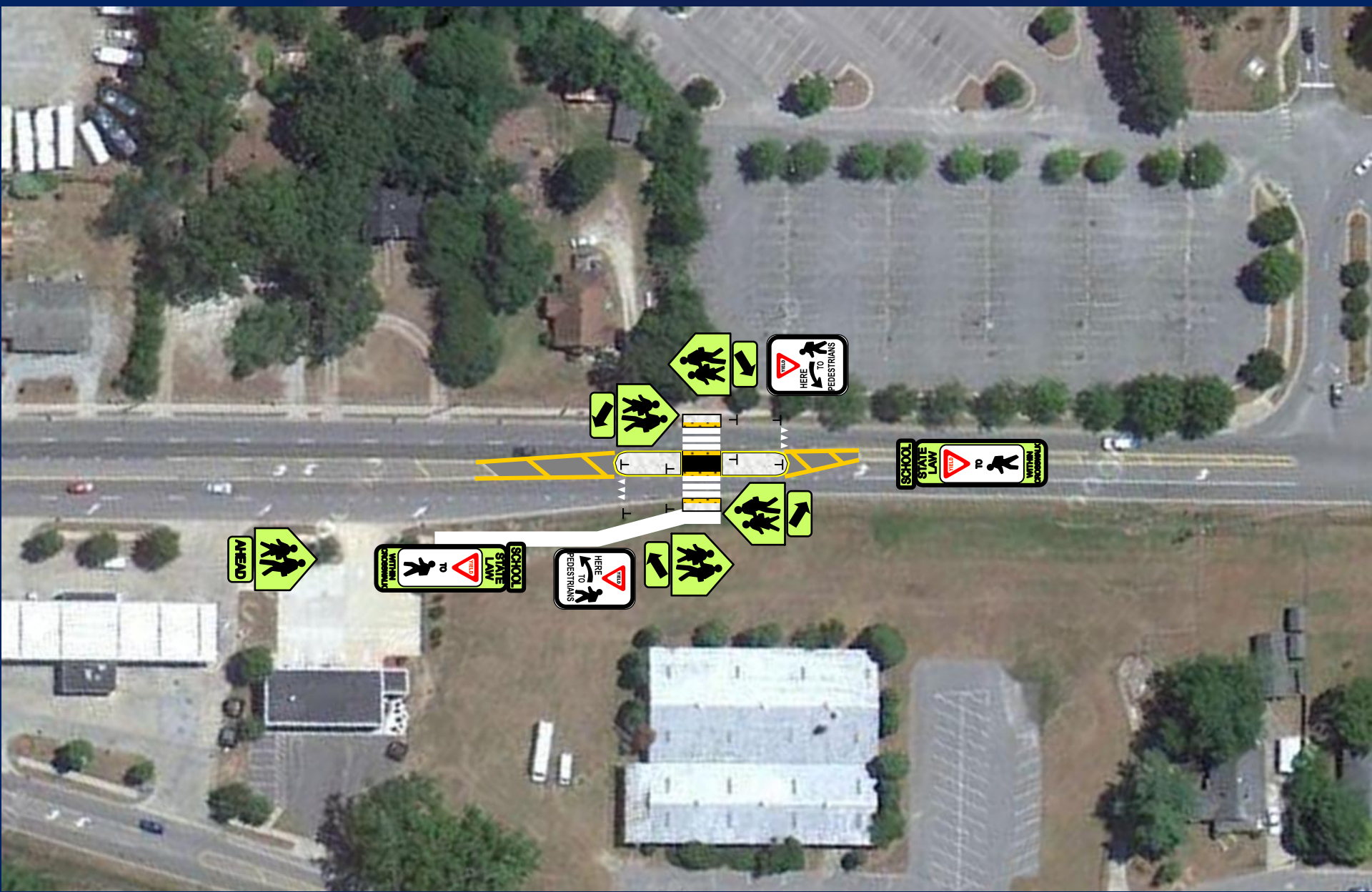
Student
Parking

Parent
Loading

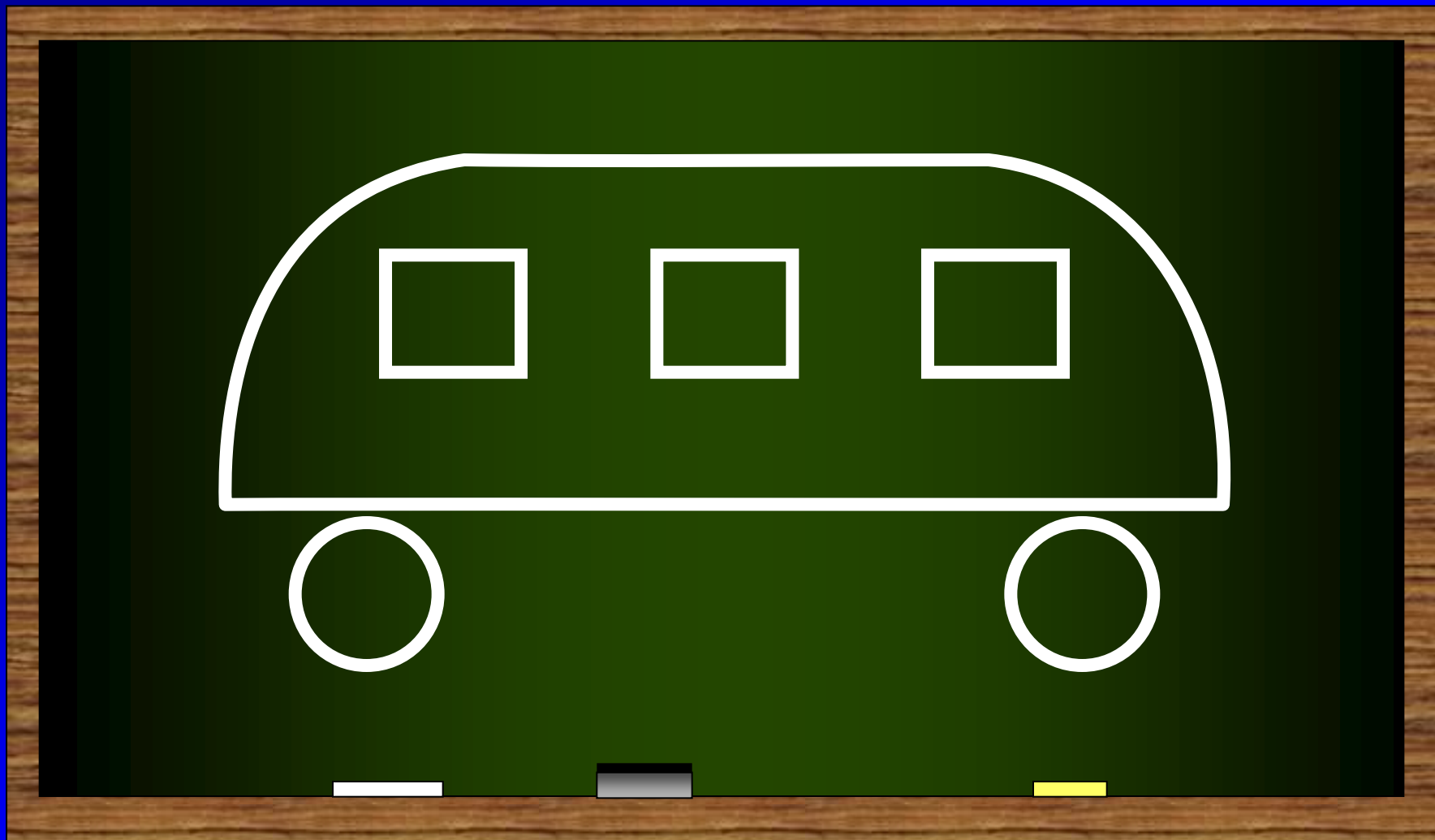
Parent
Loading



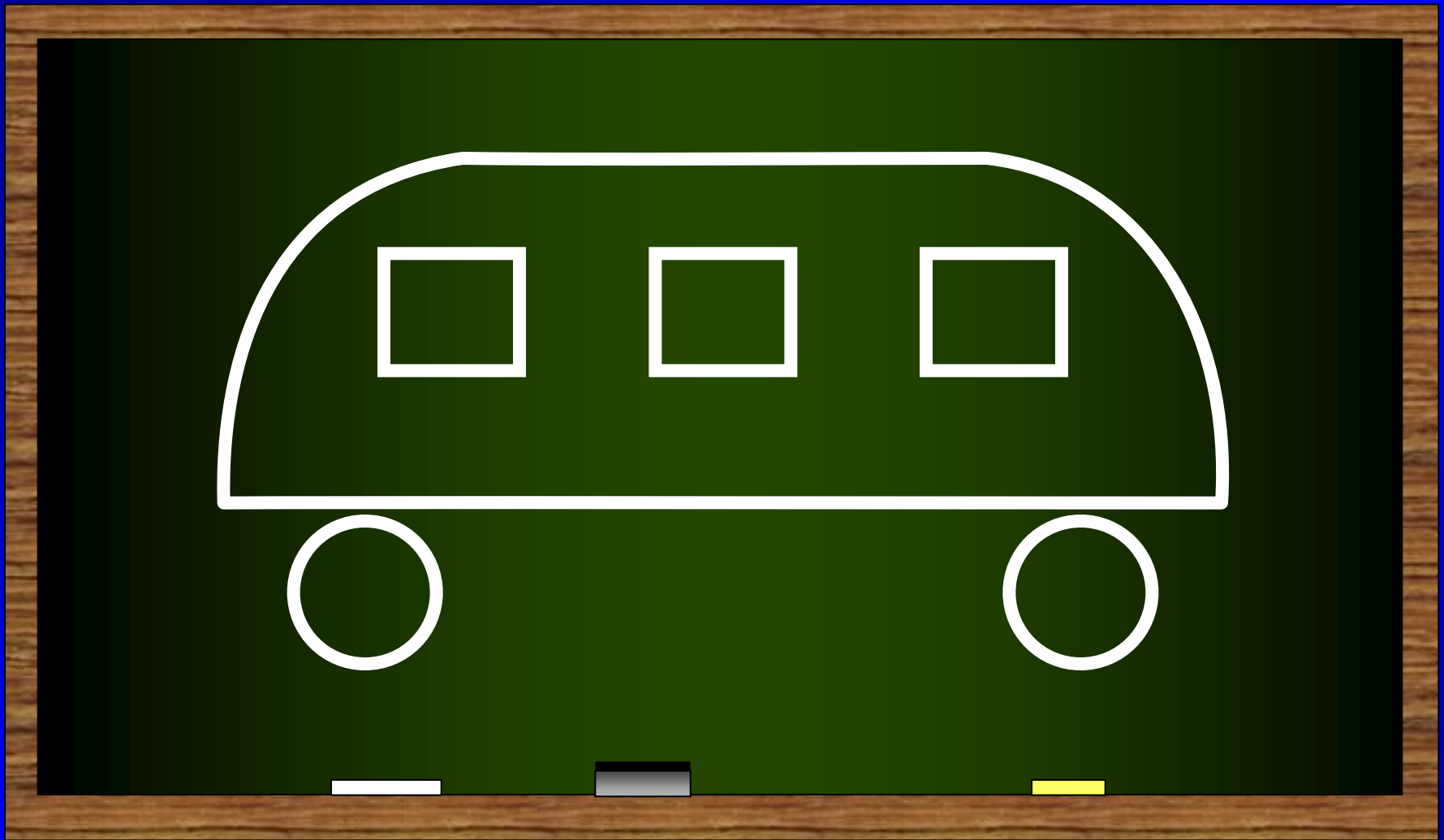




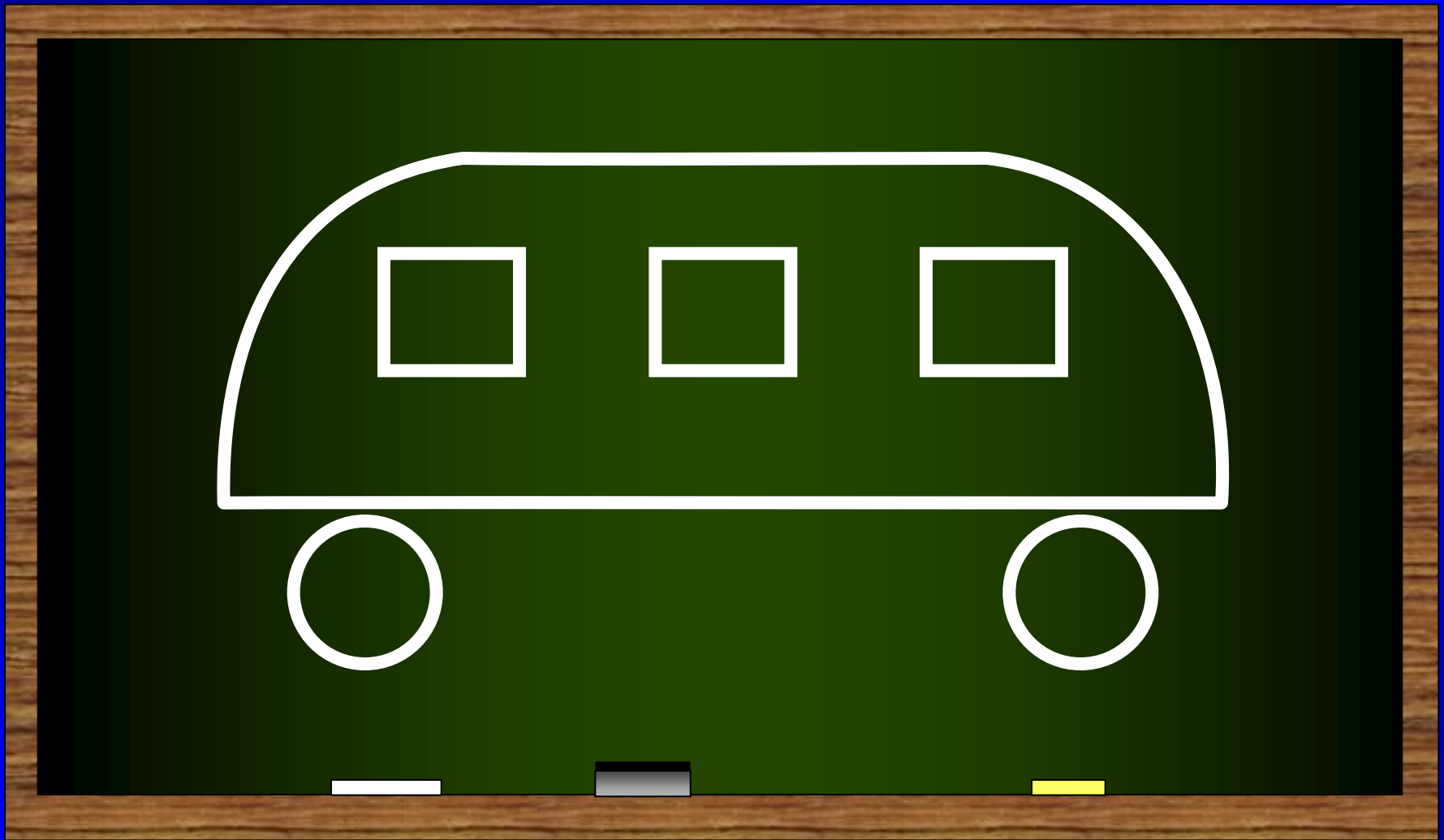
Are you smarter than
a Pre-schooler?



**Which way is the bus traveling?
To the left or to the right?**

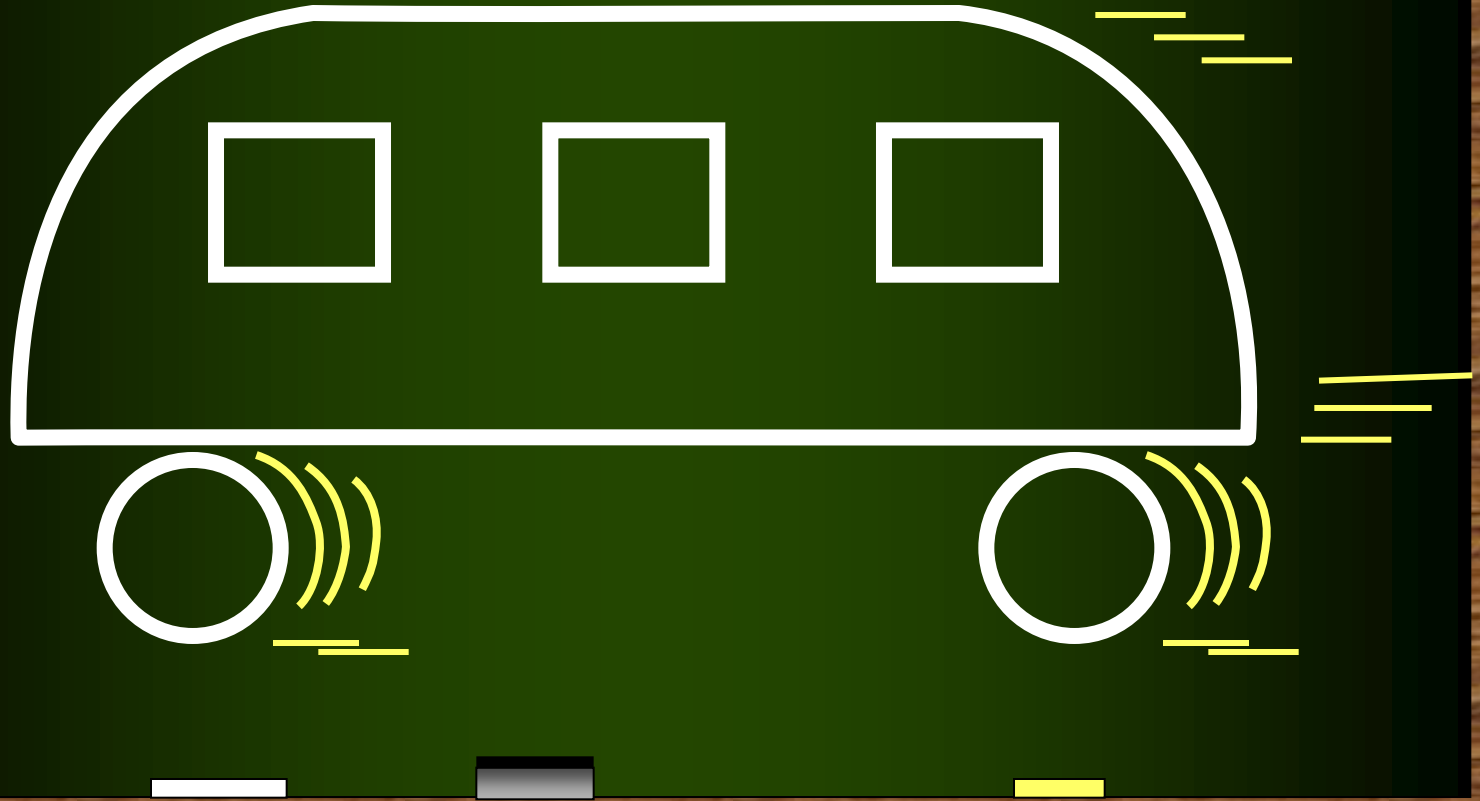


**Can't make up your mind?
Look carefully at the picture again.**



**Pre-schoolers all over the United States
were shown this picture and asked the same question.
90% of the pre-schooler's gave this answer.**

The bus is traveling to the left



When asked, "Why do you think the bus is traveling to the left?"

They answered:

"Because you can't see the door to get on the bus."

Municipal and School



Transportation Assistance

and You

Working Together

**To Provide
Safe Roads to Safe Schools**